

From glowbugs@theporch.com Sat Jan 4 13:42:29 1997  
Return-Path: <glowbugs@theporch.com>  
Received: from uro (localhost.theporch.com [127.0.0.1])  
by uro.theporch.com (8.8.4/AUX-3.1.1)  
with SMTP id NAA11475;  
Sat, 4 Jan 1997 13:37:31 -0600 (CST)  
Date: Sat, 4 Jan 1997 13:37:31 -0600 (CST)  
Message-Id: <199701041937.NAA11475@uro.theporch.com>  
Errors-To: ws4s@infoave.net  
Reply-To: glowbugs@theporch.com  
Originator: glowbugs@theporch.com  
Sender: glowbugs@theporch.com  
Precedence: bulk  
From: glowbugs@theporch.com  
To: Multiple recipients of list <glowbugs@theporch.com>  
Subject: GLOWBUGS digest 404  
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas  
X-Comment: Please send list server requests to listproc@theporch.com  
Status: 0

#### GLOWBUGS Digest 404

Topics covered in this issue include:

- 1) NC183 Restoration  
by TMOLL@aol.com
- 2) crystals/sockets  
by Bob Roehrig <broehrig@admin.aurora.edu>
- 3) Re: Radio Handbook by Bill Orr  
by Mike Toneri <toneri@ils.net>
- 4) All Electronics catalog #696 report  
by jeffdd@coriolis.com (Jeff Duntemann)
- 5) Re: Vfos and what would YOU do for a good general one?  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 6) Re: Vfos and what would YOU do for a good general one?  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 7) RE: Vfo funzies continued....  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 8) Re: crystals/sockets  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 9) Re: Re[2]: Vfos and what would YOU do for a good general one?  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 10) Re: Radio Handbook by Bill Orr  
by mjsilva@ix.netcom.com (michael silva)
- 11) Re: Radio Handbook by Bill Orr  
by "Joseph L. Hartmann, Jr." <joeh@sugar-river.net>
- 12) RE:Handbook Help  
by Bob Roach <KE4QOK@worldnet.att.net>

- 13) 2 tube AM transmitter  
by Jake Hellbach <kk5hy@accesscom.net>
- 14) Re: 2 tube AM transmitter  
by Murray Kelly <mkelly@faraday.dialix.com.au>
- 15) construction  
by LNaumann@aol.com
- 16) Items for Sale  
by Bob Marsh <bmarsh@hicom.net>
- 17) Re: 2 tube AM transmitter  
by Jake Hellbach <kk5hy@accesscom.net>
- 18) Re: 2 tube AM transmitter  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 19) Re: 2 tube AM transmitter  
by "Brian Carling" <bry@mail1.mnsinc.com>
- 20) Items for sale  
by Bob Marsh <bmarsh@hicom.net>
- 21) Re: 2 tube AM transmitter  
by "William L. Fuqua III" <wlfuqu00@service1.uky.edu>
- 22) 1931 210 TNT Tranmitter  
by Jacqueline Herman <jherman@sierra.net>

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Date: Fri, 3 Jan 1997 15:00:29 -0500  
From: TMOLL@aol.com  
To: glowbugs@theporch.com  
Subject: NC183 Restoration  
Message-ID: <970103150028\_1655713767@emout13.mail.aol.com>

Many thanks to all of you who responded to my post. Sorry if I misplaced it here instead of on BA list, but I knew all the experts here would have the answers! I appreciate all the great advice, and will hopefully be cooking soon.

Tom Moll, N0BS

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Date: Fri, 3 Jan 1997 15:57:19 -0600 (CST)  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
To: Boatanchors <boatanchors@theporch.com>, glowbugs <glowbugs@theporch.com>  
Subject: crystals/sockets  
Message-ID: <Pine.ULT.3.95.970103155421.13630B-1000000@admin.aurora.edu>

Much discussion on various crystals, holders, and sockets reminded me that while obvious to many, perhaps some don't know that to fit a HC6/U xtal into a FT-243 socket (or tube socket) you merely break the pins off an

old octal tube and slip them over the leads of the HC6 xtal.

E-mail broehrig@admin.aurora.edu                      73 de Bob, K9EUI  
CIS: Data / Telecom    Aurora University, Aurora, IL  
630-844-4898    Fax 630-844-5530

-----  
Date: Fri, 3 Jan 1997 17:02:30 -0500 (GMT-0500)  
From: Mike Toneri <toneri@ils.net>  
To: KE4QOK@worldnet.att.net  
Cc: Multiple recipients of list <glowbugs@theporch.com>  
Subject: Re: Radio Handbook by Bill Orr  
Message-ID: <199701032202.RAA02159@server1.ils.net>

At 01:35 PM 1/3/97 -0600, Bob Roach wrote:

>Hello Guys,

>

>Just prior to the holidays I went to the local Barnes and Noble book store  
>and made out my wish list. One of the books I wanted was The Radio Handbook  
>by Bill Orr. There was one copy on the shelf. When the XYL went to shop  
>that copy was gone and I ended up with a gift certificate so I called and  
>ordered the book. I just got off the phone with the sales people and they  
>told me that the book is unavailable from the distributor and indefinitely  
>out of stock from the publisher. I was told that when a book is  
>indefinitely out of stock it usually means forever.

>

>Does anyone know anything about the status of this publication. Seems hard  
>to believe that after all this time it is no longer going to be published.

I haven't seen a recent copy of The Radio Handbook for several years and I  
am not sure if one is still published. I have both the 15th and 16 editions  
and they are great reference books and just fun to read through on a cold  
winter's night when the bands are no good. I also have , for you real old  
timers out there, a copy of the Radio Engineering Handbook, second edition,  
printed in 1935. That is a fascinating book to read. Every once in a while I  
find an old technical book at a flea market or book store and add it to the  
collection.

73...Mike VE3FGU

-----  
Date: Fri, 3 Jan 1997 15:35:48 -0700  
From: jeffd@coriolis.com (Jeff Duntemann)  
To: glowbugs@theporch.com

Subject: All Electronics catalog #696 report

Message-ID: <1.5.4.32.19970103152904.00972d2c@ntserver.coriolis.com>

Hi gang--

Just got the new All Electronics catalog #696. (Not to be confused with Alltronics, separate outfit.) Brief report on items of interest to the crew here:

Page 19. Tube sockets. Octal for both PCB and solder tab construction. Phenolic body solder tab sockets \$1 each. (Quantity offer of 100/\$80 implies they have a LOT.) Also 7-pin miniature mica body solder tab @ 2/\$1, 7 or 9 pin bakelite wafer @ 5/\$1. Also have those 11-pin "octal" style plugs a Heath owner inquired about on the list recently, for \$1.

Page 26. Three different sizes of ground straps with integral end lugs. 6" and 12". \$1.50 - \$3 each.

Page 34. 2 watt linear pots, RV4 style, 150, 1K, 3.5K, & 2M ohms. \$1.50 each. Same page: numerous nice knobs for 1/4" shafts.

Page 36. Antique Polyester Capacitors (NOS) Cornell-Dubilier PM and PKM (Black Cat) capacitors, 30c-45c each, many values, 400-600v

Page 37. Silver micas, 20c-35c each. Also those high voltage mica caps discussed on this list a month or so ago. Also a 1 farad cap the size of a fat quarter. Like to take THAT back in time to 1967...

Page 38. 3V 180mAH lithium disk batteries, 10/\$10. Stack 20 in a 1" diameter plastic tube for a 60V B battery for your regen. Cost \$20 but 180mAH should last you quite awhile, (these cells have a VERY long shelf life I've heard) and the stack would only be 2" high. I may try this for my little 3Q4 regen that's been on the shelf for who knows how many years...

Page 54. Retractable mic cable, 12" retracted, 5' open. 5 conductors, one shielded. Neoprene jacket.

Page 54. 6-pin Jones power connector sets, plug and the nice round inset chassis-mount socket, set for \$1.50; 10 sets for \$12.50. I'm getting a few of these, as it's my standard power supply connector.

That's it. I've done business with these guys for many years and vouch for them.

All Electronics

Order line 1-800-826-5432

Order FAX 818-781-2653

Phone 818-904-0524

--73--

--Jeff Duntemann KG7JF  
Scottsdale, Arizona

-----  
Date: Fri, 3 Jan 1997 16:25:36 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: glowbugs@theporch.com  
Subject: Re: Vfos and what would YOU do for a good general one?  
Message-ID: <199701040024.TAA07960@news2.mnsinc.com>

Bob - would you also need to have a "T-R switch" like the old 6C4 designs that would let you run QSK? Would something like that be required too with such a scheme.

I LIKE QSK a lot and want to work on some scheme like this.  
Varactors are easy to get and work with, so it would be easy to do the FSK trick, I am sure.

On 3 Jan 97 at 11:08, rdkeys@csemail.cropsci.ncsu.e chatted merrily:

> >  
> > At 05:58 PM 1/2/97 -0800, Steve Ellington wrote:  
> > >What about a vfo with two small, fast reed relays in the output?  
> > >One would break the output when the key is up and the other would  
> > >short the output to ground when the key is up. The preceeding  
> > >stages could be biased so as to cut off with no osc input.  
> > >  
> > >This method would allow the osc. to run constantly and hopefully,  
> > >shorting the output would prevent stray radiation. If shielding  
> > >were good enough, one could even use it qsk with no osc. signal  
> > >pickup in the receiver.  
> > >  
> > >What think ye?  
> > >  
> > >Steve N4LQ  
> > >  
> > Maybe a possibility here, but the relays would have to handle the  
> > output power of the VFO and the VFO would be seeing a drastic load  
> > change too.  
> >  
> > Conard  
>  
> This is a very satisfactory method of CW QSK operation, if you FSK.  
>  
> My mentor, N1KW, a fine CW chops of the first water, used to use a  
> Collins pto from something (maybe a 32V like thingie since it had  
> the square case and the 6SJ7 tube socket --- dunno which pto model  
> tho), in this mode, but rather than keying the output keyed it FSK  
> and swamped the input with about a 0.0005 capacitor (500pf) to fsk

> it --- key down and the capacitor was out of the circuit and it  
> oscillated in the ham bands --- key up and the capacitor was in the  
> circuit and it ran down somewhere in the low bcst band. The  
> oscillator ran continuously and the other stages were grid block  
> keyed, if I remember right. The thing would key QSK at 50wpm quite  
> perfectly. I think he was using reed relays, but don't remember for  
> sure. That was 22 years ago.

>

> I was very impressed with the quality of that rig.

>

> 73/ZUT DE NA4G/Bob UP

>

>

\*\*\*\*\*  
\*\*\* 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA \*  
\*\* E-mail to: bry@mnsinc.com \*  
\*\*\* See the great ham radio resources at: \*  
\*\* <http://www.mnsinc.com/bry/> \*  
\*\*\*\*\*

-----

Date: Fri, 3 Jan 1997 16:25:36 +0000

From: "Brian Carling" <bry@mail1.mnsinc.com>

To: glowbugs@theporch.com

Subject: Re: Vfos and what would YOU do for a good general one?

Message-ID: <199701040024.TAA07965@news2.mnsinc.com>

On 3 Jan 97 at 9:03, James C. Owen, III chatted merrily:

There must be 100's of junk Heath's out there if only  
> we knew where. 73 Jim K4CGY

You know it would never surprise me if some enterprising sould  
spirited them away to poorer countries over the past 20 years and  
sold many of them there for a good profit.

Just my guess.

As for me, I am planning to go the opposite direction, and try to import some  
English glowbugs/boatanchors in the near future!

Bry, G3XLQ

\*\*\*\*\*  
\*\*\* 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA \*  
\*\*\*\*\*

\*\* E-mail to: bry@mnsinc.com \*

\*\*\* See the great ham radio resources at: \*

\*\* <http://www.mnsinc.com/bry/> \*

\*\*\*\*\*

-----

Date: Fri, 3 Jan 1997 16:25:37 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: glowbugs@theporch.com  
Subject: RE: Vfo funzies continued....  
Message-ID: <199701040024.TAA07968@news2.mnsinc.com>

On 3 Jan 97 at 12:15, James C. Owen, III chatted merrily:

> In message Fri, 3 Jan 1997 11:39:36 -0600 (CST),  
> rdkeys@csemail.cropsci.ncsu.edu writes:  
>  
> > I really like that idea of fsking the vfo.  
>  
> Once again a job already done for you if you use a Heath SB series  
> LMO. There is a terminal used to shift the LMO when you change  
> sidebands to keep the operating frequency constant. This terminal  
> will shift frequency at least 5 KC maybe more. This should be enough  
> to get the frequency away from the operating frequency. 73 Jim K4CGY

Hmmm, I think you need more shift than that if you want to avoid  
having slightly degraded receiver sensitivity!

I guess you could always move it up a bit more though!

\*\*\*\*\*

\*\*\* 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA \*

\*\* E-mail to: bry@mnsinc.com \*

\*\*\* See the great ham radio resources at: \*

\*\* <http://www.mnsinc.com/bry/> \*

\*\*\*\*\*

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Date: Fri, 3 Jan 1997 16:25:37 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: glowbugs@theporch.com  
Subject: Re: crystals/sockets  
Message-ID: <199701040024.TAA07971@news2.mnsinc.com>

GREAT TIP Bob! Thanks!

On 3 Jan 97 at 15:59, Bob Roehrig chatted merrily:

>  
> Much discussion on various crystals, holders, and sockets reminded  
> me that while obvious to many, perhaps some don't know that to fit a  
> HC6/U xtal into a FT-243 socket (or tube socket) you merely break  
> the pins off an old octal tube and slip them over the leads of the  
> HC6 xtal.

>  
>  
> E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI  
> CIS: Data / Telecom Aurora University, Aurora, IL  
> 630-844-4898 Fax 630-844-5530  
>  
>

\*\*\*\*\*  
\*\*\* 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA \*  
\*\* E-mail to: bry@mnsinc.com \*  
\*\*\* See the great ham radio resources at: \*  
\*\* http://www.mnsinc.com/bry/ \*  
\*\*\*\*\*

-----  
Date: Fri, 3 Jan 1997 16:25:36 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: hinec@ccgate.dl.nec.com  
Subject: Re: Re[2]: Vfos and what would YOU do for a good general one?  
Message-ID: <199701040024.TAA07976@news2.mnsinc.com>

This sounds like a great gadget. Is it expensive?

On 3 Jan 97 at 7:21, Cory Hine chatted merrily:

> Guys:  
>  
> A thought on stability... DPK builds a little curcuit that has a  
> reference voltage to a varactor, which compensates the drift...  
> Have a couple on order. Will tell you how they work on Collins  
> transceivers! Might solve this decades old problem. Just a  
> thought....  
>  
> Cory  
>  
> \_\_\_\_\_ Reply Separator  
> \_\_\_\_\_ Subject: Re: Vfos and what would  
> YOU do for a good general one? Author: bry@mail1.mnsinc.com at  
> smtpink-dl Date: 1/2/97 7:36 PM



>  
>  
> Weeeeell... the Vackar VFO design is out there on the web...  
>  
> I think the hardest part is getting good stability.  
>  
> Valve VFOs tend to drift, PERIOD!  
>  
> Mine needs about a 45 minute warm up before it even begins to get  
> stable enough to use on the air! I could show you the circuit  
> diagram from the old Geloso 6CL6-5763 device if anyone is  
> interested.  
>  
> On 2 Jan 97 at 14:28, rdkeys@csemail.cropsci.ncsu.e chatted  
> merrily:  
>  
> > Date: Thu, 2 Jan 1997 14:28:13 -0600 (CST)  
> > Reply-to: rdkeys@csemail.cropsci.ncsu.edu  
> > From: rdkeys@csemail.cropsci.ncsu.edu  
> > To: Multiple recipients of list <glowbugs@theporch.com>  
> > Subject: Vfos and what would YOU do for a good general one?  
>  
> > Holiday thinkin' an' head bangin' brought me to the conclusion  
> > that I need a good general purpose VFO --- something that would  
> > put out maybe half a watt, and be good for replacing the xtals in  
> > any old rig of happenstance.  
> >  
> > Requirements:  
> >  
> > 0. Must be a glowbugge device.....(:+}}.....  
> >  
> > 1. 160/80/40/30m output directly, with frequency coverage for all  
> > the  
> > new proposed warc band (that basically means anything between  
> > 1.5 and 12 mhz), via multiplying or heterodyning.  
> >  
> > 2. 0.5 watt output into a 50 ohm load, with tuning non-critical  
> > or with  
> > a peaking control (single control besides vfo master frequency  
> > control). It should be possible to loosely couple or adjust  
> > coupling to give any desired drive for replacing a xtal  
> > oscillator.  
> >  
> > 3. Power inputs to be 6.3 vac/vdc or 12.6 vac/vdc (depending upon  
> > tubes  
> > or lineup), and 250-300vdc unregulated, so line, external  
> > power supply, or dynamotor/vibrator power would work.  
> >

```
> > 4. Keying to be at the oscillator level with anything from a
> > -30vdc to
> > more grid block or a relay to key, for QSK, mandatory.
> >
> > 5. Size is unimportant, but good general stability is. It should
> > be
> > possible to use the device as a calibrated frequency standard
> > if it is not being used as a vfo (but, the use of a detector
> > system is not required --- that is what LM's and BC-221's are
> > for).
> >
> > 6. Exact dial calibration is not required, although, good
> > precision
> > dials would be of use. A 0-1000 dial would be fine, or maybe
> > some sort of inexpensive dial drive more precision than a
> > Velvet Vernier.
> >
> >
> > I have my own pet ideas about how this should be done or mebbe I
> > would do it, but for the sake of glowebugge discussion, let us
> > hear how YOU would do it, what tubes you might use, how you might
> > adapt surplus parts, how you might tackle exotic parts, etc.
> >
> > One of the reasons for discussing this is to supplement the
> > growing herd of single tubers with tv rocks in them, for
> > flexibility.
> >
> > Some of this was discussed back before xmas, but I think it is a
> > worthy thread to spin around some more.
> >
> > 73/ZUT DE NA4G/Bob UP
> >
> >
> >
> >
> >
> >
> >
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*****
*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** http://www.mnsinc.com/bry/ *
*****
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From: mjsilva@ix.netcom.com (michael silva)  
To: glowbugs@theporch.com  
Subject: Re: Radio Handbook by Bill Orr  
Message-ID: <199701040151.RAA15677@dfw-ix11.ix.netcom.com>

You wrote:

>

>At 01:35 PM 1/3/97 -0600, Bob Roach wrote:

>>Hello Guys,

>>

>>Just prior to the holidays I went to the local Barnes and Noble book  
>>store and made out my wish list. One of the books I wanted was The  
>>Radio Handbook by Bill Orr.

Bob (I'm responding via the list since I didn't see your message, only the reply to it),

I'm sure I saw a copy at the B&N store in Pleasant Hill, CA last night. Try calling them or have your local store call them if you can't turn one up.

>I have both the 15th and 16 editions  
>and they are great reference books and just fun to read through on a  
>cold winter's night when the bands are no good. I also have , for you  
>real old timers out there, a copy of the Radio Engineering  
>Handbook, second edition, printed in 1935. That is a fascinating book

Speaking of old radio books, I was lucky enough to find a 1942 ARRL Handbook over the Christmas break -- what a kick! I also found a 1941 copy of the Radio Engineering Handbook by Henney, 3rd edition, 900+ pages. I already had a copy of this one, but the one I found had an inscription that I couldn't resist: "To Lieut. Raymond Cole from the 'Radio Gang' and Communications Officers of the U.S.S. Wichita". To me that connects the book directly to a different time and place (I'm gonna have to read up on the Wichita's war record) and I grabbed it. This makes my other copy (in very good condition) surplus, so I'll sell it for what I paid -- \$10, plus say \$3 for shipping, if anybody is interested.

73,  
Mike, KK6GM

-----

Date: Fri, 3 Jan 1997 22:39:04 -0500 (EST)  
From: "Joseph L. Hartmann, Jr." <joeh@sugar-river.net>  
To: michael silva <mjsilva@ix.netcom.com>

Subject: Re: Radio Handbook by Bill Orr

Message-ID: <Pine.BSD/.3.91.970103223342.11371E-100000@arakis.sugar-river.net>

Old radio books:

There is a book dealer in Fitzwilliam, NH who has quite a collection of old radio books. The name of the shop is "Rainy Day Books".

Rainy Day Books  
P.O. Box 775  
Fitzwilliam, NH 03447  
(603) 585 - 3448

Wow! Why am I advertising the competition?? Maybe it's because I don't have my stuff on a database, and I spend all my time reading Internet lists ??

Best Regards,

Joe Hartmann           Tel: (603) 863 6073  
K2AJV -issued         email: joeh@sugar-river.net  
1951                 home-page: <http://www.sugar-river.net/~joeh>

-----  
First Student at the:

Linux Academy in the Sunshine Town of Newport, NH

Thanks to RMS, Linus, and other contributors of free software!  
----- I grant this to the public domain -----

On Fri, 3 Jan 1997, michael silva wrote:

> You wrote:  
> >  
> >At 01:35 PM 1/3/97 -0600, Bob Roach wrote:  
> >>Hello Guys,  
> >>  
> >>Just prior to the holidays I went to the local Barnes and Noble book  
> >>store and made out my wish list. One of the books I wanted was The  
> >>Radio Handbook by Bill Orr.

-----  
Date: Sat, 4 Jan 1997 05:26:01 +0000  
From: Bob Roach <KE4QOK@worldnet.att.net>

To: boatanchors@theporch.com  
Cc: glowbugs@theporch.com  
Subject: RE:Handbook Help  
Message-ID: <19970104052553.AAB13773@LOCALNAME>

Thanks to everyone who offered help and locations where Bill Orr's Radio Handbook is available. I was able to locate one about a hundred miles away which is being ship (free) to the local store for me to purchase with my gift certificate.

Thanks again

(o o)

-----o00\_( )\_00o-----

73 es TNX

KE4QOK Real radios glow in the dark.

Bob Power is no substitute for skill.

If it stayed up last winter, it was too small.

136 Hermitage Rd.

Newport News, Va. 23606 KE4QOK@worldnet.att.net

(757)930-0348

-----  
Date: Fri, 3 Jan 97 23:53 CST  
From: Jake Hellbach <kk5hy@accesscom.net>  
To: glowbugs@theporch.com  
Subject: 2 tube AM transmitter  
Message-ID: <2.2.16.19970103234721.3bffd934@accesscom.net>

Hello to all,

I have just updated my Web page with a Gif of the 2 tube 80 meter AM transmitter designed by Bob Carter, W6NTU in the 50's.

Some of the values may be hard to read but I am going to redraw and upload it.

I have a question about the link for the antenna. How many turns does this need over the tank coil?

It looks like a simple circuit as the 12AT7 is a combination mike amp and crystal oscillator, and a sweep tube as the final.

I will be building one of these in the very near future and hope to let you know of the progress.

To go to the schematic of the transmitter go the the "boatanchors" section in my page and follow the link.

The URL is in my sig. file.

Thanks, Jake KK5HY

++++  
Email via: kk5hy@accesscom.net  
A.M. International #832  
Check out the Westside ARC Web page at:  
<http://www.accesscom.net/~kk5hy>  
Now updated with boatanchor links!!!!  
++++

-----  
  
Date: Sat, 04 Jan 1997 23:06:11 +1100  
From: Murray Kelly <mkelly@faraday.dialix.com.au>  
To: kk5hy@accesscom.net  
Subject: Re: 2 tube AM transmitter  
Message-ID: <32CE47B3.70A0@faraday.dialix.com.au>

I see you have 500-1000V on the one half of the 12ax7. Suggest you try dividing this by 10! 50-100 sounds a bit better.

Jake Hellbach wrote:

>  
> Hello to all,  
> I have just updated my Web page with a Gif of the 2 tube 80 meter AM  
> transmitter designed by Bob Carter, W6NTU in the 50's.  
> Some of the values may be hard to read but I am going to redraw and upload it.  
> I have a question about the link for the antenna. How many turns does this  
> need over the tank coil?  
> It looks like a simple circuit as the 12AT7 is a combination mike amp and  
> crystal oscillator, and a sweep tube as the final.  
> I will be building one of these in the very near future and hope to let you  
> know of the progress.  
>  
> To go to the schematic of the transmitter go the the "boatanchors" section  
> in my page and follow the link.  
>  
> The URL is in my sig. file.  
>  
> Thanks, Jake KK5HY  
> +++++  
> Email via: kk5hy@accesscom.net  
> A.M. International #832  
> Check out the Westside ARC Web page at:  
> <http://www.accesscom.net/~kk5hy>  
> Now updated with boatanchor links!!!!  
> +++++

Cheers--

\*\*\*\*\*  
\* Murray Kelly vk4aok mkelly@faraday.dialix.com.au \*  
\* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia \*  
\* ph/fax Intl+ 61 7 3379 3307 mobile 018 071 355 \*  
\*\*\*\*\*

-----  
Date: Sat, 4 Jan 1997 09:04:17 -0500  
From: LNaumann@aol.com  
To: glowbugs@theporch.com  
Subject: construction  
Message-ID: <970104090416\_1324497298@emout12.mail.aol.com>

HELLO GLOWBUGGERS AND HAPPY NEW YEAR

I'd just like to pass on some things I've learned from building a couple of Bare Essential Xmtrs and the 6T9. Yes I did get both working and they work fine. The 6T9 is a much better rig with really nice clean tone and keying. The 6T9 is really a two stage rig with a seperate osc and amp. This is a much better approach as for as stability and signal quality are concerned. I set up my 6T9 with band switching for 80, 40 and 30 meters. It works great on all 3 bands, with about 5 to 6 watts out. This may be a little high for my Qrp operating. The Bare Essentials uses a 50C5 tube as a one stage Xmtr, osc and amp in one. A couple of things to be very careful with this rig as for as safety is concerned;

1: it uses no transformer. this is okay as long as you are certain about which wire at your recaptacle is hot and which is the neutral. In older houses this can vary from rec. to rec. As an electrician I know this all to well.

2: for the DC supply (about 330v) the filter cap has no bleeder resistor, this leaves a potentially fatal charge on this cap for who knows how long after the thing has been turned off.

3: if built as shown, the tank circuit components all have the DC plate voltage on them, same danger here.

4: I used an HC49 style xtal, I dont know if an FT243 would be better but when built as decribed in the literature the rig chirped and freq hopped quite a bit. The cure was to lessen the load on the osc/amp by removing turns from the ant link coil over the tank circuit coil. This lowers the output but cleans up the signal. It still wasnt real good but okay. I guesstimate output at about 4-5 watts this way, but it sounded much better.

5: all these items can be easily fixed by the addition of a few parts and some slight circuit modifications. The origional designer kept the circuit to a bare minimum of parts as suggested by the title but I think the extra parts are well worth it for safety's sake.

I think it's fine to go back in time and build some of the old rigs and I love tubes but we need to make sure that we copy only the good circuits and

techniques. After all we do have hindsight in this case. It's a shame to hear all those chirpy wide CW signals on the already crowded bands, and it's almost always a tube type homebrewed rig. I take great pleasure in building my own equipment, but even greater pleasure in knowing that it puts out a premium signal. After all, isn't that what Ham radio is all about? Excellance!!

I'll get off my soapbox now!

I hope this info helps some, I've learned a lot from this list.

73's

Larry Naumann AA0DM  
St. Louis, MO

-----  
Date: Sat, 04 Jan 1997 09:05:48 -0500  
From: Bob Marsh <bmarsh@hicom.net>  
To: Glowbugs List Server <glowbugs@theporch.com>,  
Subject: Items for Sale  
Message-ID: <32CE63BB.2B2B@hicom.net>

Hi All,

I have the following items for sale. All prices are plus shipping from ZIP 07006 to your QTH:

1. Conar Mod. 280 Signal Generator. 170Kc - 60Mc. (10 Lbs) \$25.00
2. AN/URM-25F Signal Generator with new manual. (35-40 Lbs) \$135.00  
Has the following accessories:
  - 2 - Short, 1 long BNC cables.
  - 1 - DA-109 Dummy Load.
  - 1 - CU-408 Impedance Matching network.
  - 1 - Set test leads.
  - 1 - "N" to BNC adaptor.
3. Johnson Viking Challenger TX With manual copy. (20-25 Lbs) \$50.00  
Covers 80, 40, 20, 25, 10 & 6 meters AM/CW. It loads up on 40 & 80m (no Xtals for the other bands). CW signal has a bit of a chirp in it.
4. Hallicrafters Receivers - S-120 & S-118. (10 Lbs ea) S-120: \$20.00 S-118: \$15.00  
Or both for \$30.00. The S-118 has a broken slug in an IF can, but has a manual (such as it is). The S-120 works but had some dead



spots (probably needs some  
TLC & an alignment)

5. FSK-1000 RTTY/ASCII demodulator with copy of manual. (15 Lbs) \$25.00

All prices are based on what I've seen posted in various sources. I'll entertain any reasonable offer. If you think the price is too high on a particular item, let me know why. I will also consider trades for Heathkit gear and test equipment. I'm particularly interested in:

HD-1410 Keyer  
SB-620 Scanalyzer  
SA-2040 Antenna Tuner  
HM-15 SWR Bridge

Please reply via private E-mail. Thanks a lot es 73 de Bob/KB2SGM

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Date: Sat, 4 Jan 97 08:18 CST  
From: Jake Hellbach <kk5hy@accesscom.net>  
To: mkelly@faraday.dialix.com.au  
Cc: glowbugs@theporch.com  
Subject: Re: 2 tube AM transmitter  
Message-ID: <2.2.16.19970104081220.3c1fada2@accesscom.net>

Thanks for the update, any help is more that welcome since I am new to this!

As you see the schematic is as I scanned it from the original, but now that you mention it the voltage on the plate of the 12AX7 does seem a little high. I will adjust the schematic.

Thanks again, Jake KK5HY

At 11:06 PM 1/4/97 +1100, you wrote:  
>I see you have 500-1000V on the one half of the 12ax7. Suggest you try  
>dividing this by 10! 50-100 sounds a bit better.  
>  
>

++++  
Email via: kk5hy@accesscom.net  
A.M. International #832  
Check out the Westside ARC Web page at:  
<http://www.accesscom.net/~kk5hy>  
Now updated with boatanchor links!!!!  
++++

-----  
Date: Sat, 4 Jan 1997 06:32:55 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: Jake Hellbach <kk5hy@accesscom.net>, glowbugs@theporch.com  
Subject: Re: 2 tube AM transmitter  
Message-ID: <199701041432.JAA21552@news2.mnsinc.com>

Jake this is GREAT!  
One more wonderful project for all of us tube homebrewers out here!  
I am sure that other tubes could be substituted for whatever sweep  
tube you came up with.

I will put up a link to your web site from mine, and now have a good  
number of glowbug projects directly clickable from my pages!

NOW we need a frequency for GLOWBUG AM stations in the day time on 40  
meters.

Propagation on 40m has been excellent lately for small signals, so I  
am sure it would be good for daytime AM on say, 7280 kHz

What about it guys?

On 3 Jan 97 at 23:48, Jake Hellbach chatted merrily:

> Hello to all,  
> I have just updated my Web page with a Gif of the 2 tube 80 meter AM  
> transmitter designed by Bob Carter, W6NTU in the 50's. Some of the  
> values may be hard to read but I am going to redraw and upload it. I  
> have a question about the link for the antenna. How many turns does  
> this need over the tank coil? It looks like a simple circuit as the  
> 12AT7 is a combination mike amp and crystal oscillator, and a sweep  
> tube as the final. I will be building one of these in the very near  
> future and hope to let you know of the progress.  
>  
> To go to the schematic of the transmitter go the the "boatanchors"  
> section in my page and follow the link.  
>  
> The URL is in my sig. file.  
>  
> Thanks, Jake KK5HY  
> ++++++  
> Email via: kk5hy@accesscom.net  
> A.M. International #832  
> Check out the Westside ARC Web page at:  
> <http://www.accesscom.net/~kk5hy>

> Now updated with boatanchor links!!!!  
> ++++++  
>  
>  
\*\*\*\*\*  
\*\*\* 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA \*  
\*\* E-mail to: bry@mnsinc.com \*  
\*\*\* See the great ham radio resources at: \*  
\*\* <http://www.mnsinc.com/bry/> \*  
\*\*\*\*\*

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Date: Sat, 4 Jan 1997 06:39:25 +0000  
From: "Brian Carling" <bry@mail1.mnsinc.com>  
To: glowbugs@theporch.com  
Subject: Re: 2 tube AM transmitter  
Message-ID: <199701041438.JAA21600@news2.mnsinc.com>

On 4 Jan 97 at 7:10, Murray Kelly chatted merrily to Jake KK5HY:

> I see you have 500-1000V on the one half of the 12ax7. Suggest you  
> try dividing this by 10! 50-100 sounds a bit better.

Wow, really, let me take a look....

Yowza, he sure does! Well, I think 250V would be more reasonable to  
get enough OOMPH! to drive the screen on that sweep tube up to some  
reasonable percentage of modulation.

HOW do you set your % mod on a TX like that if you don't possess a  
monitor scope or modulation meter and get it anywhere close to 100%  
mod.? Listen to the signal and minimize distortion/maximize audio?  
Sounds risky? But looks like a VERY enjoyable project!

BTW - We could make a group buy of xtals for this rig, guys. What freq.  
would anyone suggest?

\*\*\*\*\*  
\*\*\* 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA \*  
\*\* E-mail to: bry@mnsinc.com \*  
\*\*\* See the great ham radio resources at: \*  
\*\* <http://www.mnsinc.com/bry/> \*  
\*\*\*\*\*

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Date: Sat, 04 Jan 1997 13:09:17 -0500  
From: Bob Marsh <bmarsh@hicom.net>

To: Glowbugs List Server <glowbugs@theporch.com>,  
Subject: Items for sale  
Message-ID: <32CE9CCD.7B40@hicom.net>

Hi everyone,

The Johnson Challenger and URM-25 have been sold. Both went almost immediately. I still have a few items left, though:

1. Conar Mod. 280 Signal Generator. 170Kc - 60Mc. (10 Lbs) \$25.00
2. Hallicrafters Receivers - S-120 & S-118. (10 Lbs ea)  
S-120:\$20.00 S-118: \$15.00 Or both for \$30.00. The S-118 has a broken slug in an IF can, but has a manual (such as it is). The S-120 works but had some dead spots (probably needs some TLC & an alignment)
3. FSK-1000 RTTY/ASCII demodulator with copy of manual. (15 Lbs) \$25.00

I'm also looking for Heathkit gear, especially test equipment. Contact me if you have something to trade.

Tnx es 73 de Bob/KB2SGM

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Date: Sat, 4 Jan 1997 14:30:40 -0500 (EST)  
From: "William L. Fuqua III" <wlfuqu00@service1.uky.edu>  
To: glowbugs@theporch.com  
Subject: Re: 2 tube AM transmitter  
Message-ID: <199701041930.0AA26549@service1.cc.uky.edu>

I think I see how the circuit is supposed to work. All the AF voltage gain comes from the step up transformer and the triode is used as an cathode follower. The cathode resistor is set to get a screen voltage of about 250 volts and if you had 500 volts on the plate of the modulator you would have about 250 volts plate-cathode voltage. I suggest it not be used with more than 500 V B+ on either the modulator or the PA.

You would adjust the cathode resistor for a reasonable PA plate dissipation and adjust modulation level by distance from microphone. Don't forget to replace the battery for the microphone frequently and have a switch in series with it so it is only used while transmitting.

The audio choke should be a RF choke. Otherwise it would not provide any modulation current to the PA screen. Unless the choke and screen bypass values are such that they act as a

low pass filter to limit the audio bandwidth to about 4 KHz or so.

This circuit may work with these few changes.

However the plate dissipation on the 12ax7 may be a bit much depending on the screen current. It's filaments may not be the only elements glowing. Also I'd prefer seeing a pentode in the oscillator circuit.

It would be nice for some one to try the circuit to honor the SK's contribution to the service.

73

Bill wa4lav

William L. Fuqua III P.E. E-mail WLFUQU00@POP.UKY.EDU Phone (606) 257-4155  
Department of Physics and Astronomy CP-177 Chem. Phys. Bldg.  
University of Kentucky , Lexington, Ky 40506-0055

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Date: Sat, 4 Jan 1997 11:38:33 -0800 (PST)  
From: Jacqueline Herman <jherman@sierra.net>  
To: glowbugs@theporch.com  
Subject: 1931 210 TNT Transmitter  
Message-ID: <Pine.SUN.3.91.970104112740.11238C-100000@diamond.sierra.net>

Hi Gang,

I just came across the January '73 issue of CQ Magazine - in it is an article titled "A Strictly Modern 210 TNT Transmitter For 80 Meters". The author has built it on a varnished breadboard - really a thing of beauty! I'd like to photo copy the article and send it to someone who has the ability to scan it into our archives (Bob? Bry?).

The builder has used copper tubing for the inductors, connections to xmtr are via Fahnestock clips, and the tank coil sits on porcelain standoff insulators. It's so pretty!

Who ever wants to scan this project please send me your postal address.

73 from flooded Nevada,  
Jeff KH2PZ / 7

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End of GLOWBUGS Digest 404  
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